

REMARKS

This paper is being provided in response to the Office Action dated June 24, 2009, for the above-referenced application. In this response, Applicants have amended claims 1-7, 11, 17 and 18 to clarify that which Applicants consider to be the presently-claimed invention. Applicants respectfully submit that the amendments to the claims are fully supported by the originally-filed specification, consistent with the discussion herein.

The rejection of claims 1-18 under 35 U.S.C. 112, second paragraph, as being indefinite have been addressed by amendments contained herein and is otherwise hereby traversed. Applicants have clarified the term "software platform" to instead recite "operating system" and have made some additional clarifying amendments concerning a "platform-independent application" and access thereof to data in a memory. Applicants recite that an application execution environment, which is executable on an operating system, executes a platform-independent application. Applicants point out that the terms "operating system," "application execution environment," and "platform-independent application," are well known terms in the field of computer science and would be clearly understood by one of ordinary skill in the art. Applicants note, in particular, that the term "platform-independent" in describing an application refers to the application being executable independently of the type of software platform (i.e. operating system) rather than succumbing to the interpretation that there is a contradiction because "an application cannot be executed on a software platform and at the same time be independent of it" as is noted on page 3 of the Office Action. That is, the statement in the Office Action (page 3) that: "The claim is indefinite because the subject matter implies that an application program is executed on a software platform, but that application program is platform-

independent" is inaccurate since no contradiction is indicated. Rather, as noted above, a platform-independent application may be executed on a software platform (i.e. operating system) by an application execution environment, while being independent of the type of platform, and, indeed, these indicate commonly understood definitions of these known terms. In contrast, for example, a platform-dependent application is executed dependent upon a specific software platform. For reference and illustrative discussion only, Applicants note the discussion in the specification (e.g., paragraphs 0002-0007) in connection with a Java virtual machine (JVM) that is an environment that may execute platform-independent applications and note the comparative discussion in the specification to execution of platform-dependent programs. Accordingly, for purposes of appropriate examination, Applicants' recited term "platform-independent application" should be correctly interpreted according to its proper meaning rather than being interpreted to be the opposite thereof (i.e. platform-dependent).

The rejection of claims 1-7 and 9-18 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent App. Pub. No. 2004/0029640 to Masuyama, et al. (hereinafter "Masuyama") is hereby traversed and reconsideration is respectfully requested in view of the amendments to the claims contained herein.

Independent claim 1, as amended herein, recites a mobile communication terminal including first memory means and second memory means for storing data. An operating system is arranged to access data stored in said first memory means. An application execution environment is executable on said operating system and executes a platform-independent application having access to data stored in said second memory means. Detection means detects at least one of position, direction, attitude and movement of the mobile communication terminal

along at least one axis of a coordinate system. Memory process means performs a memory process to store detection result data acquired based on detection results by said detection means in said first memory means, wherein the detection result data includes information concerning changes to the at least one of position, direction, attitude and movement of the mobile communication terminal along the at least one axis. Data transfer means transfers the detection result data stored in said first memory means to said second memory means, according to a data transfer instruction from said application execution environment, wherein said application execution environment executes said platform-independent application using the detection result data stored in said second memory means. Claims 2, 3, 9 and 10 depend from independent claim 1.

Independent claim 4, as amended herein, recites a mobile communication terminal including memory means for storing data. An operating system is arranged to access data stored in said memory means. An application execution environment is executable on said operating system and executes a platform-independent application having access to data stored in said memory means. A 3-axis magnetic sensor and a 2-axis acceleration sensor are used as detection means for detecting at least one of position, direction, attitude and movement of the mobile communication terminal in connection with at least one axis of a coordinate system in accordance with a detection instruction generated by said application execution environment according to a description of said platform-independent application. Memory process means stores detection result data acquired based on detection results by said detection means in said memory means, wherein the detection results include information concerning changes to the at least one of position, direction, attitude and movement of the mobile communication terminal in connection with the at least one axis, wherein said application execution environment executes

said platform-independent application using the detection result data stored in said memory means. Claims 9 and 10 depend from independent claim 4.

Independent claim 5, as amended herein, recites a mobile communication terminal including an operating system arranged to access data stored in memory means. An application execution environment is executable on said operating system and executes a platform-independent application having access to data stored in the memory means. Detection means detects at least one of position, direction, attitude and movement of said mobile communication terminal in connection with at least one axis of a coordinate system. Data process means performs data process of assigning the detection data of said detection means to predetermined arithmetic expression for calculation and storing the calculation result data in said memory means, wherein the detection data includes information concerning changes to the at least one of position, direction, attitude and movement of the mobile communication terminal in connection with the at least one axis, and wherein said application execution environment executes the platform-independent application using the calculation result data stored in said memory means. Claims 8-10 depend from independent claim 5.

Independent claim 6, as amended herein, recites a mobile communication terminal including an operating system arranged to access data stored in memory means. An application execution environment is executable on said operating system and executes a platform-independent application having access to data stored in the memory means. Detection means detects at least one of position, direction, attitude and movement of said mobile communication terminal in connection with at least one axis of a coordinate system. Data process means performs data processes of linking mutually between detection data of said detection means or

data calculated from this detection data and other data acquired by means other than said detection means, and storing the linked data in said memory means, wherein the detection data includes information concerning changes to the at least one of position, direction, attitude and movement of the mobile communication terminal in connection with the at least one axis, and wherein said application execution environment executes the platform-independent application using said linked data stored in said memory means. Claims 8-10 depend from independent claim 6.

Independent claim 7, as amended herein, recites a mobile communication terminal including an operating system arranged to use data stored in memory means. An application execution environment is executable on said operating system and executes a platform-independent application having access to data stored in the memory means. Detection means detects at least one of position, direction, attitude and movement of said mobile communication terminal in connection with at least one axis of a coordinate system. Data process means performs a data process of specifying at least two of detection data of said detection means or data calculated from the detection data, which meet predetermined conditions, and storing the specified data in said memory means, wherein the detection data includes information concerning changes to the at least one of position, direction, attitude and movement of the mobile communication terminal in connection with the at least one axis, and wherein said application execution environment executes the platform-independent application using said specified data stored in said memory means. Claims 8-10 depend from independent claim 7.

Independent claim 11, as amended herein, recites a mobile communication terminal including a first memory and a second memory for storing data. An operating system is arranged

to access data stored in the first memory. An application execution environment is executable on the operating system and executes a platform-independent application having access to data stored in the second memory. At least one sensor detects at least one of position, direction, attitude and movement of the mobile communication terminal along at least one axis of a coordinate system. A memory processor performs a memory process to store, in the first memory, detection result data determined based on detection results by the at least one sensor, wherein the detection result data includes information concerning changes to the at least one of position, direction, attitude and movement of the mobile communication terminal in connection with the at least one axis. A data transfer device transfers the detection result data stored in the first memory to the second memory, according to a data transfer instruction from the application execution environment, wherein the application execution environment executes the platform-independent application using the detection result data stored in the second memory. Claims 12-18 depend directly or indirectly from independent claim 11.

Masuyama discloses a game system which is arranged to execute programs stored on removable cartridges. Masuyama describes providing motion detecting means for use in executing programs by means of a motion sensor contained in the removable cartridge. The Office Action indicates the latches (334, 335) in the sensor interface (33) on the cartridge (30) to be analogous to the recited "first memory means" and the work RAM (26) in the game machine (10) to be analogous to the recited "second memory means." The Office Action (page 4) also indicates the work RAM (26) to be akin to a "software platform" like that previously recited by Applicants and appears to identify "temporary data stored in the work RAM" as an application execution environment.

Applicants first point out, in accordance with discussion above, the claims have been amended herein to replace the term "software platform" to instead recite "operating system" in response to interpretations of claim terms set forth in the Office Action. Applicants points out that a RAM (i.e. a memory) is not an operating system on which an application execution environment is executable and that executes a platform-independent application. Accordingly, even beyond the assertion that one of ordinary skill in the art would not consider mere reference to a RAM to disclose an operating system or an application execution environment like that recited by Applicants, the specific features that are recited in Applicants' claims concerning the functioning and operations of the operating system and the application execution environment differentiate these recited features from the work RAM cited in Masuyama. Additionally, although remarks set forth herein correct the misinterpretation in the Office Action of Applicants' recited platform-independent application (i.e. that interpretation of a "platform-independent application" to be a "platform-dependent application"), the stated remarks in the Office Action appear to indicate the features of Masuyama's system as being platform-dependent. Accordingly, based on the above-noted points, and as set forth in the detailed below, Applicants submit that Masuyama that does not disclose a mobile communication terminal including at least the features of an application execution environment that is executable on an operating system and executes a platform-independent application having access to a memory of the mobile communication terminal, wherein said application execution environment executes said platform-independent application using detection result data stored in the memory, according to that which is recited by Applicants.

Applicants submit that a problem with prior art systems in the field of the presently-claimed invention is that motion sensing data is stored in software platform memory and is not

readily accessible by platform-independent applications, such as JAVA applications, which are generally only permitted to access memory reserved for the application environment. In the prior art systems, the way to import this data from the platform memory for use in an application running in the environment involves complex pre-processing of the motion data and therefore in increase in the complexity of application development. For example, the game system described in Masuyama describes the execution of an application on a particular platform, not on an application execution environment (e.g., Sun Microsystem's JAVA runtime environment), executable on an operating system, that may execute platform-independent applications, as is recited by Applicants.

Specifically, Applicants' independent claim 1, as amended herein, recites that a mobile communication terminal includes an operating system arranged to access data stored in said first memory means and an application execution environment executable on said operating system for executing a platform-independent application, the platform-independent application having access to data stored in said second memory means. Unlike the game system described in Masuyama, as noted above, in which is described the execution of a platform-dependent application on a particular platform of the game system device and not on an application execution environment that executes a platform-independent application as is recited by Applicants. Applicants refer, for example, to the discussion in the originally-filed specification on page 3, line 24 to page 4, line 24, and note that the application execution environment is recited by Applicants as a feature distinct from the operating system, on which the application execution environment is executable, and that executes a platform-independent application having access to a memory of the mobile communication terminal, wherein said application

execution environment executes said platform-independent application using detection result data stored in the memory.

Further, Applicants also particularly note the remarks set forth on page 14. The Office Action appears to suggest that the feature of a "separate environment" is not recited, apparently hinging this interpretation on the word "separate." The use of the descriptive term "separate environment," in discussing the differences with Masuyama, noted in connection with features of Applicants' claimed invention that are recited in the claims (e.g., the distinct, presently-recited features involving an operating system, an application execution environment, and a platform-independent application), seems sufficient to point out or otherwise describe that Applicants' recited application execution environment that is executable on an operating system (i.e. previously recited as a software platform) and executes a platform-independent application is different from anything disclosed by Masuyama. Accordingly, in connection with the detailed discussed herein, Applicants submit that Masuyama that does not disclose at least the features of an application execution environment that is executable on an operating system and that executes a platform-independent application having access to a memory of the mobile communication terminal, wherein said application execution environment executes said platform-independent application using detection result data stored in the memory, as is recited by Applicants. Applicants note that regardless of any purported interpretations of Applicants' claim terms and discussions thereof, an appropriate examination of the claims of this application must consider all the features recited by Applicants.

Similar features as those discussed above with respect to independent claim 1 are recited in the other independent claims, and the claims depending therefrom, and accordingly, the above-noted remarks may also be applied to those claims.

Accordingly, Applicants respectfully submit that Masuyama does not teach or fairly suggest at least the above-noted features as are recited by Applicants. In view of the above, Applicants respectfully request that the rejection be reconsidered and withdrawn.

The rejection of claim 8 under 35 U.S.C. 103(a) as being unpatentable over Masuyama in view of U.S. Patent No. 7,175,529 to Hartman (hereinafter "Hartman") is hereby traversed and reconsideration is respectfully requested.

The features of Applicants' independent claims are discussed above in connection with Masuyama. Claim 8 depends therefrom.

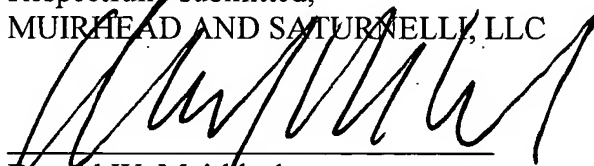
Hartman discloses a method and apparatus for an RF transmitter layout in a gaming hall. The Office Action cites to Hartman as disclosing a radio communication means for communicating by wireless communication utilizing radio waves, citing specifically to col. 5, lines 52-67 and col. 6, lines 26-45 of Hartman.

Applicants respectfully submit that the Hartman reference does not overcome the above-noted deficiencies of Masuyama with respect to Applicants' presently-claimed invention. Hartman does not disclose, nor is Hartman cited in the Office Action in connection with, Applicants' recited features that are discussed above with respect to Masuyama. Accordingly,

Applicants respectfully submit that neither Masuyama nor Hartman, taken alone or in combination, teach or fairly suggest at least the above-noted features as claimed by Applicants. In view of the above, Applicants respectfully request that the rejection be reconsidered and withdrawn.

Based on the above, Applicants respectfully request that the Examiner reconsider and withdraw all outstanding rejections and objections. Favorable consideration and allowance are earnestly solicited. Should there be any questions after reviewing this paper, the Examiner is invited to contact the undersigned at 508-898-8603.

Respectfully submitted,
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